



April 4, 2005
696/CAL- 3855

VIA EXPRESS DELIVERY SERVICE

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U.S. Nuclear Regulatory Commission
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Subject: Docket No. 70-734; SNM-696: Request for NRC to be the Lead Agency for the Release of GA's Nuclear Waste Processing Facility and Adjacent Surrounding Areas to Unrestricted Use

and

Ms. Sudana Kwok (in Duplicate)
Division of Food, Drug, and Radiation Safety
Department of Health Services
Radiologic Health Branch, MS 7610
P.O. Box 997414
Sacramento, CA 95899-7414

Subject: Radioactive Materials License No. 0145-37: Concurrence with GA's Request for NRC to be the Lead Agency for the Release of GA's Nuclear Waste Processing Facility and Adjacent Surrounding Areas to Unrestricted Use

Dear Mr. Baker and Ms. Kwok:

Background

Most of GA's site and facilities are, or have been, under the joint jurisdiction of both the U.S. NRC (NRC) and the State of California (State). Since about 1984, GA has been decontaminating (when appropriate) and decommissioning various of its facilities and land areas and requesting that they be released to unrestricted use and deleted from GA's NRC and State special nuclear and radioactive material licenses, respectively. Therefore, GA routinely submits its release requests to both the NRC and the State.

Because GA is seeking to obtain the release to unrestricted use of nearly all of its numerous facilities and land areas while continuing to conduct its various other business operations, the decommissioning effort has had to be accomplished in a piece-meal fashion. The decommissioning process unavoidably requires facilities to be vacated while surveys and remediation are conducted and while awaiting regulatory review and approval of GA's release requests. During this time the facility and or land area is unavailable for use by GA in support of its business activities. Thus, it is important to GA to obtain requested releases in a timely manner.

For several years, General Atomics (GA), the Nuclear Regulatory Commission (NRC), and the State of California DOH's Radiologic Health Branch (State) have met annually to review progress and to coordinate efforts related to GA's on-going site decommissioning activities. To avoid unnecessary duplication of effort on their part, and so as to reduce the time taken to approve release requests, the NRC and State concurred that they would, in consultation with GA, agree among themselves as to which agency would take the lead in performing confirmatory surveys and releasing specific land areas and/or facilities to unrestricted use.

During the joint coordination meeting held on May 14, 2002, the list of facilities and/or land areas yet to be released to unrestricted use was reviewed, as well as the agency who would take the lead for the release. It was decided that the State would be the lead agency for GA's Nuclear Waste Processing Facility (NWPF), although either agency could take the lead because both State licensed radioactive materials and NRC licensed special nuclear materials were used at the NWPF. However, the possibility of transferring the lead for some facilities and/or land areas from the State to the NRC was also discussed at this meeting.

By letter dated March 11, 2004 (Ref. 1), GA requested that the lead for its Nuclear Waste Processing Facility (NWPF) and adjacent surrounding areas be transferred from the State to the NRC for release of to unrestricted use. This request was subsequently discussed in the annual joint coordination meeting held at GA on June 15, 2004, where the State requested, and GA agreed to provide, additional information regarding the use of SNM at the NWPF to augment the justification for the transfer. That is the purpose of this letter.

Additional Information

GA's entire NWPF has been decommissioned, dismantled, packaged and shipped off site to an authorized disposal facility, and final radiological survey reports written and submitted in support of release requests. The NWPF was comprised of three locations on GA's Main and Sorrento Valley sites (see Figure 1). These three locations are designated as NWPF-1, NWPF-2, and NWPF-3:

- NWPF-3 was located on GA's Main Site and consisted of Building 25 and a narrow strip of land adjacent to each of the four sides of the former building (see Figure 2).
- NWPF-2 was located on GA's Sorrento Valley Site and consisted of a concrete storage bunker and adjacent fenced paved storage areas (see Figures 3 and 5).
- NWPF-1 was located on GA's Sorrento Valley Site and consisted of a portion of Building 41 and adjacent paved storage areas as well as landscaped areas (see Figure 3 and 4).

The NWPF existed, at these locations, from 1984-2004. It's function was to accept radioactive waste from various GA facilities and activities that involved the use of radioactive and special nuclear materials. The wastes were processed, packaged, stored and shipped off site to authorized disposal facilities. GA has been engaged in a numerous activities involving the

use of Special Nuclear Material (typically ~93% and/or ~20% enriched uranium) for over 30 years. More specifically, such activities included the following:

- (1) Manufacturing of High Temperature Gas-Cooled Reactor (HTGR) nuclear fuel (in Building 37-North),
- (2) Manufacturing of TRIGA® nuclear fuel (in Building 22),
- (3) Nuclear Fuel Process Development and R&D (in Building 39),
- (4) Radiochemistry work (in Building 27),
- (5) R&D related to nuclear fuel at GA's former Hot Cell Facility,
- (6) R&D in numerous of the ~250 laboratories within GA's Building 2, and
- (7) The decontamination and decommissioning of these laboratories, facilities and surrounding land areas.

The radioactive waste generated while these facilities/activities were operating was transferred to the Nuclear Waste Processing Facility (NWPF), between 1984 and 2004. Similarly, wastes generated during the decontamination and decommissioning of these facilities/activities were also transferred to the NWPF. At Building 25 (NWPF-3), the liquid waste treatment facility, low-level liquid wastes were treated, filtered and released to the sanitary sewer system after the levels were below the applicable allowable release limits. At the NWPF-1 portion of Building 41 (the southern portion of the building; which has now been dismantled) and associated storage yards, waste was stored, compacted, re-packaged, solidified, neutralized, and shipped off site to an authorized low-level radioactive waste disposal facility.

Because of volume of wastes received at the NWPF from facilities/activities involving the use of SNM licensed by the NRC (e.g., U-235 in the form of enriched uranium), there was the potential for the accumulation of significant quantities of U-235 at the NWPF (i.e., quantities greater than the 350 gram possession limit of GA's State license). For that reason, the NWPF-1 and -2 were equipped with Criticality Warning Alarm Systems (CWAS) under the jurisdiction of the NRC. Thus it is appropriate for the NRC to have the lead responsibility in processing the release requests for the NWPF.

The NWPF-1 site is situated in the middle of the Sorrento Valley South Land Area (SVS) (see Figure 4). The SVS Land Area is subdivided into three parts: 1) the NWPF-1 site (including the footprint of the now dismantled portion of Building 41 that had been part of NWPF-1), 2) the remaining portion of Building 41, and 3) the remainder of SVS which consists of areas immediately adjacent to and surrounding the NWPF-1 site. (See Figure 4). The source of any contamination on any part of the SVS Land Area would be the NWPF-1. Therefore, the lead agency for releasing all of the SVS Land Area should be the same as for the NWPF-1, i.e., the U.S. NRC.

For purposes of obtaining the piecemeal release of the NWPF-2, the site was subdivided into three parts and was, therefore, the subject of three separate release requests. Please note that the NRC was the lead agency for all three NWPF-2 release requests. There was a separate release request for the concrete bunker situated on the NWPF-2 site, and two additional requests for the fenced storage areas comprising the NWPF-2 site (see Figure 5).

There is additional precedent for the State and the NRC agreeing to a transfer of lead responsibility from the State to the NRC. For example, in December 2002, GA requested that the lead agency responsibility for the release of (1) the LINAC Land Area, (2) the Building 27-1 (EA-1 Bunker) Land Area and (3) the Building 27 Service Yard Land Area be transferred from the State to the NRC (Ref. 2). Both the NRC and the State agreed to the transfer, which allowed the NRC to perform confirmatory surveys and subsequently release these three land areas to unrestricted use.

Finally, the relative resources available to the two agencies favors the NRC in terms of being able to respond to release requests in a more timely manner so as to minimize the time GA's facilities and land areas remain encumbered and unavailable for production utilization.

Conclusion

On the basis of the information contained in Reference 1, incorporated herein by reference, and the additional information contained in this letter, there exists ample justification for the NRC to be the lead agency for processing GA's requests for the release to unrestricted use of the Sorrento Valley South Land Area (including NWPF-1) and the former Building 25 Site (NWPF-3). (The NRC has already taken the lead on the release of NWPF-2.)

Request

As was described in some detail in Reference 1, GA has been awaiting the State's release of NWPF-3 (Building 25) since July 2003, and of a portion of NWPF-2 (Area 5 of Sorrento Valley West) since October 2003. Accordingly, GA hereby re-iterates its request contained in Reference 1 that "the NRC take the lead, at this time, for the release to unrestricted use of the Sorrento Valley South Land Area and the former Building 25 Site."

If you should have any questions regarding this request, please don't hesitate to contact me at (858) 455-2823 or Laura Q. Gonzales at (858) 455-2758. Your assistance in responding to this request is very much appreciated.

Very truly yours,



Keith E. Asmussen, Ph.D., Director
Licensing, Safety and Nuclear Compliance

cc: Dr. D. Blair Spitzberg, NRC Region IV
Mr. Robert Evans, NRC Region IV
Ms. Barbara Hamrick, State of CA, Brea, CA

Enclosures:

- Figure 1: GA's Main Site and Sorrento Valley Site
- Figure 2: Building 25 Site Land Area and Adjacent Land Areas
- Figure 3: Sorrento Valley Site Land Areas
- Figure 4: Sorrento Valley South Land Area
- Figure 5: Sorrento Valley Site Land Areas Within NWPF-2 Boundary

References:

- (1) Letter dated March 11, 2004 from Keith E. Asmussen (696/CAL-3709) to Ms. Julie Olivier (NRC) and Ms. Sudana Kwok (State), "Request for NRC to be the Lead Agency for the Release of GA's Nuclear Waste Processing Facility and Surrounding Areas (a.k.a. Sorrento Valley South Land Area and the former Building 25 Site) to Unrestricted Use"
- (2) Letter dated December 3, 2002 from Keith E. Asmussen (696/CAL-3545) to Ms. Mary Adams (NRC) and Ms. Sudana Kwok (State), "Request for NRC to be the Lead Agency for the Release of (1) LINAC Land Area, (2) the Building 27-1 (EA-1 Bunker) Land Area and (3) Building 27 Service Yard Land Area to Unrestricted Use"

Building Numbers Names

Building 1	Administration
Building 2	Science Laboratories A, B, C
Building 7	Cafeteria
Building 9	Office/Lab Building
Building 10	Office Building/Health Physics
Building 13	Technical Office Building
Building 14	Technical Office East
Building 15	Technical Office East
Building 19	Swimming Pool Building
Building 21	TRIGA Reactor Facility
Building 22	Inertial Fusion Development Building
Building 23	Former Hot Cell Facility
Building 25	Former Liquid Waste Treatment (NWPF)
Building 27	Space Power Building
Building 29	Office Building
Building 29-2	Landscaper's Building
Building 30	Office/Lab Building (Former LINAC Complex)
Building 31	Storage/Nuclear Calibration
Building 31-2	ECF Critical Building
Building 33	ICF Lab Building
Building 33-1	ICF Office Building
Building 33-5	Painters Building
Building 34	Fusion DIII-D Building
Building 34-1	Fusion DIII-D Capacitor Building
Building 34-2	Fusion DIII-D Lab Building
Building 34-3	Fusion DIII-D Storage Building
Building 35	Test Tower Building
Building 35-1	Facilities (Shipping & Receiving)
Building 36	Experimental Building
Building 37	Sorrento Valley Building A
Building 39-1	Storage Building
Building 41	Former Nuclear Waste Processing Facility (southern end)
Building 42	Rest of Building - R&D
Building 45	Laboratory Building (QA)
Building 63	Machine Shop
Building 64	3550 Dunhill St.
Building 65	11030 Roselle St.
Building 66	3520 Dunhill St.
Building 66	3510 Dunhill St.

Figure 1: GA's Main Site and Sorrento Valley Site

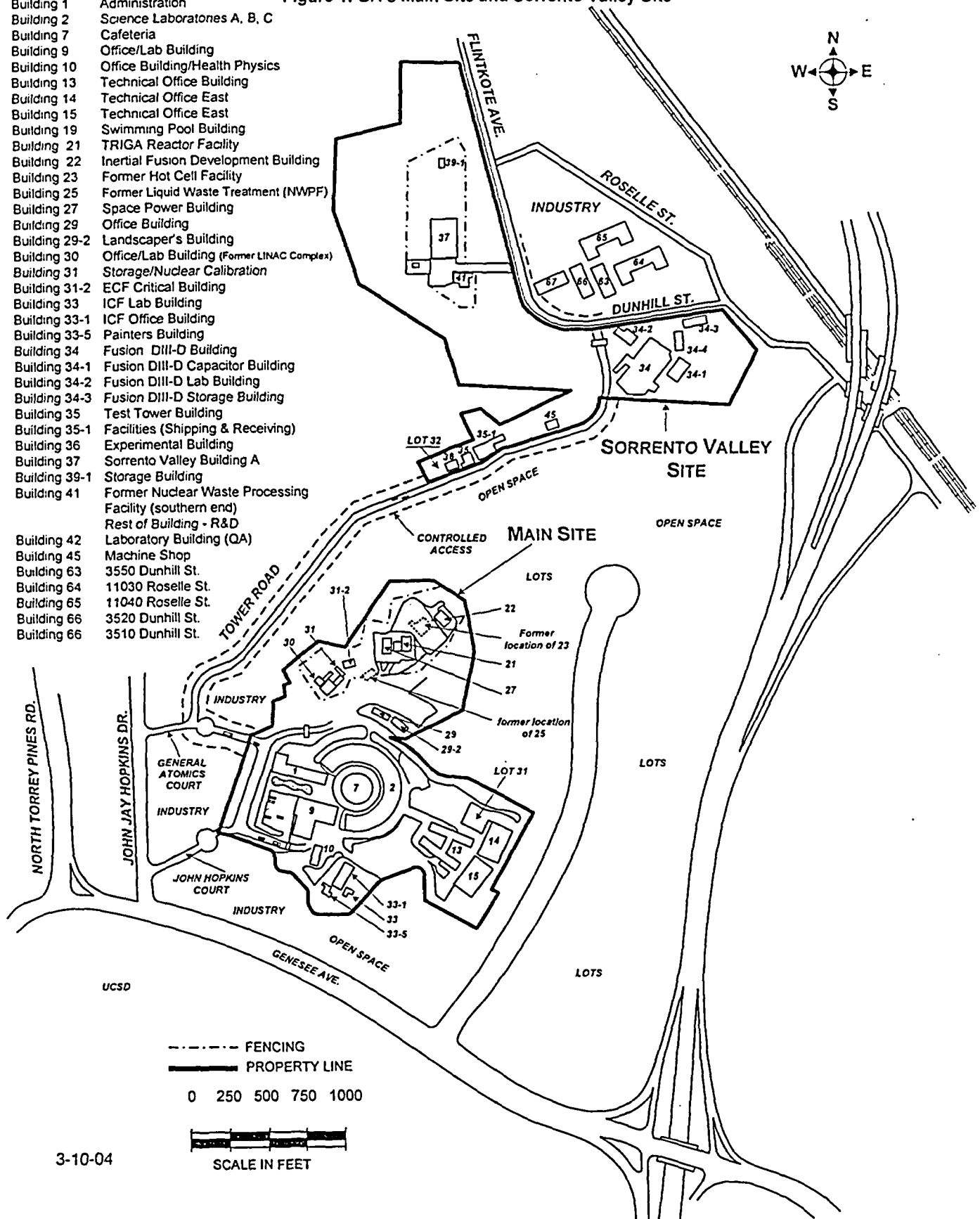


Figure 2: Building 25 Site Land Area and Adjacent Land Areas

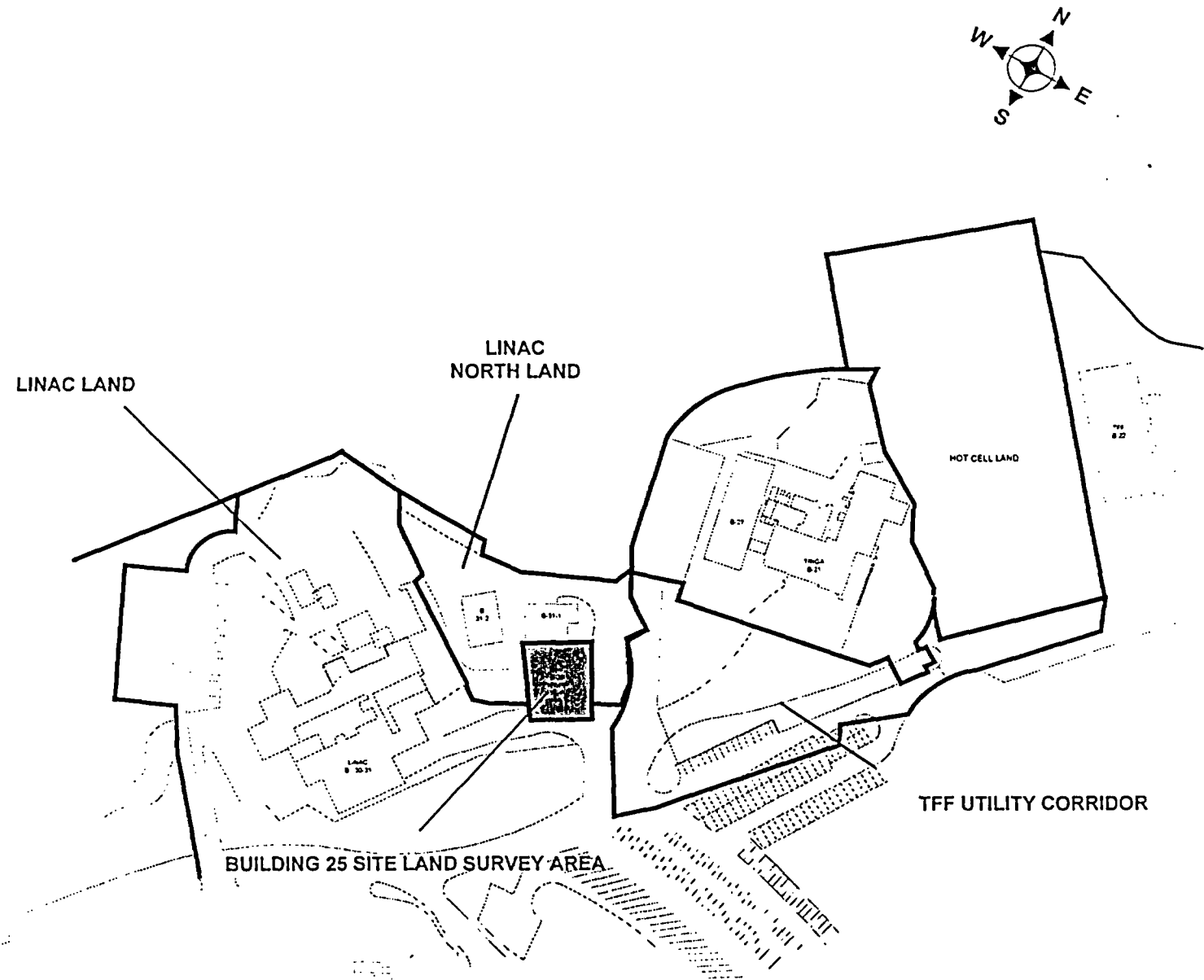


Figure 3: Sorrento Valley Site Land Areas

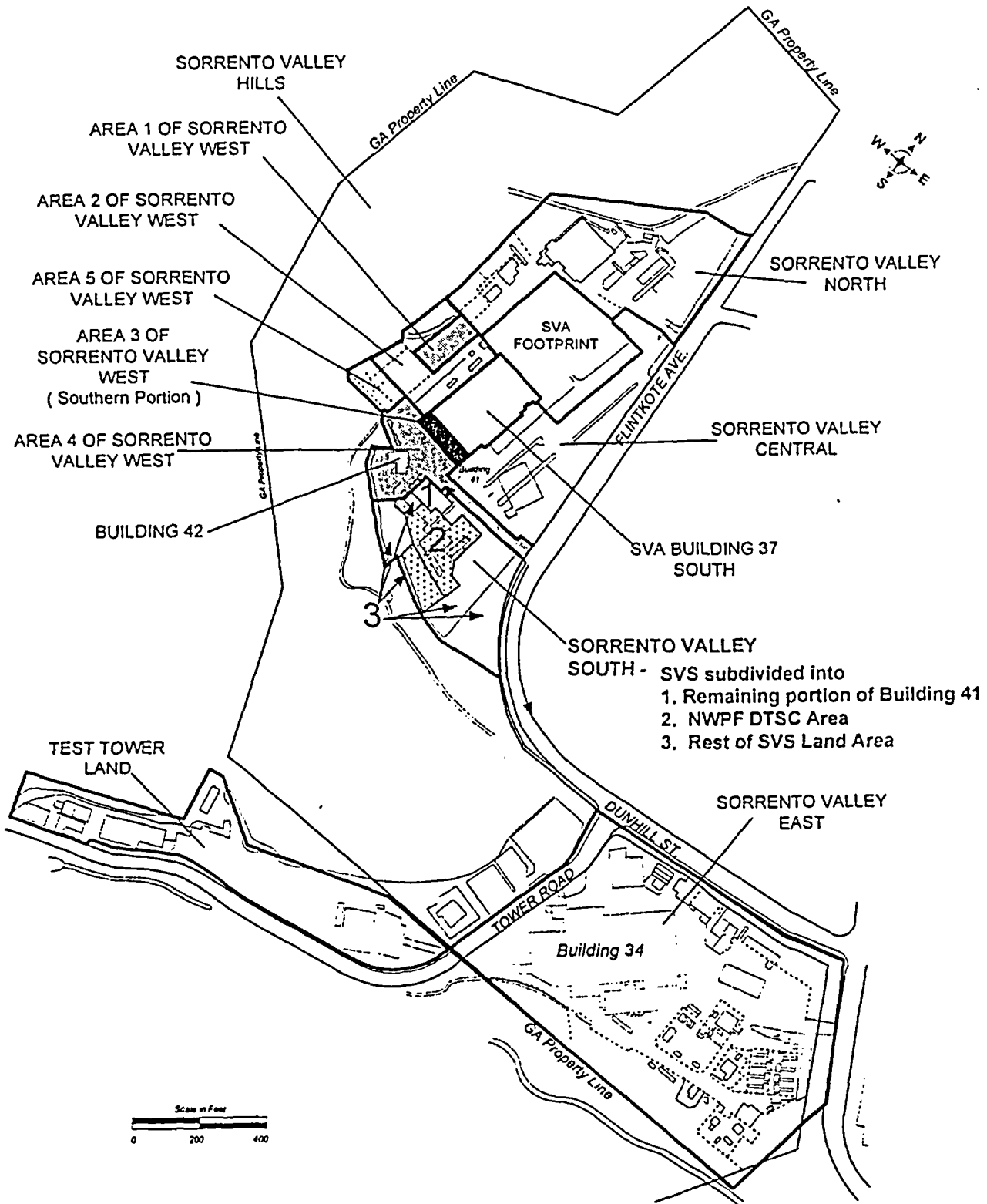


Figure 4: Sorrento Valley South Land Area

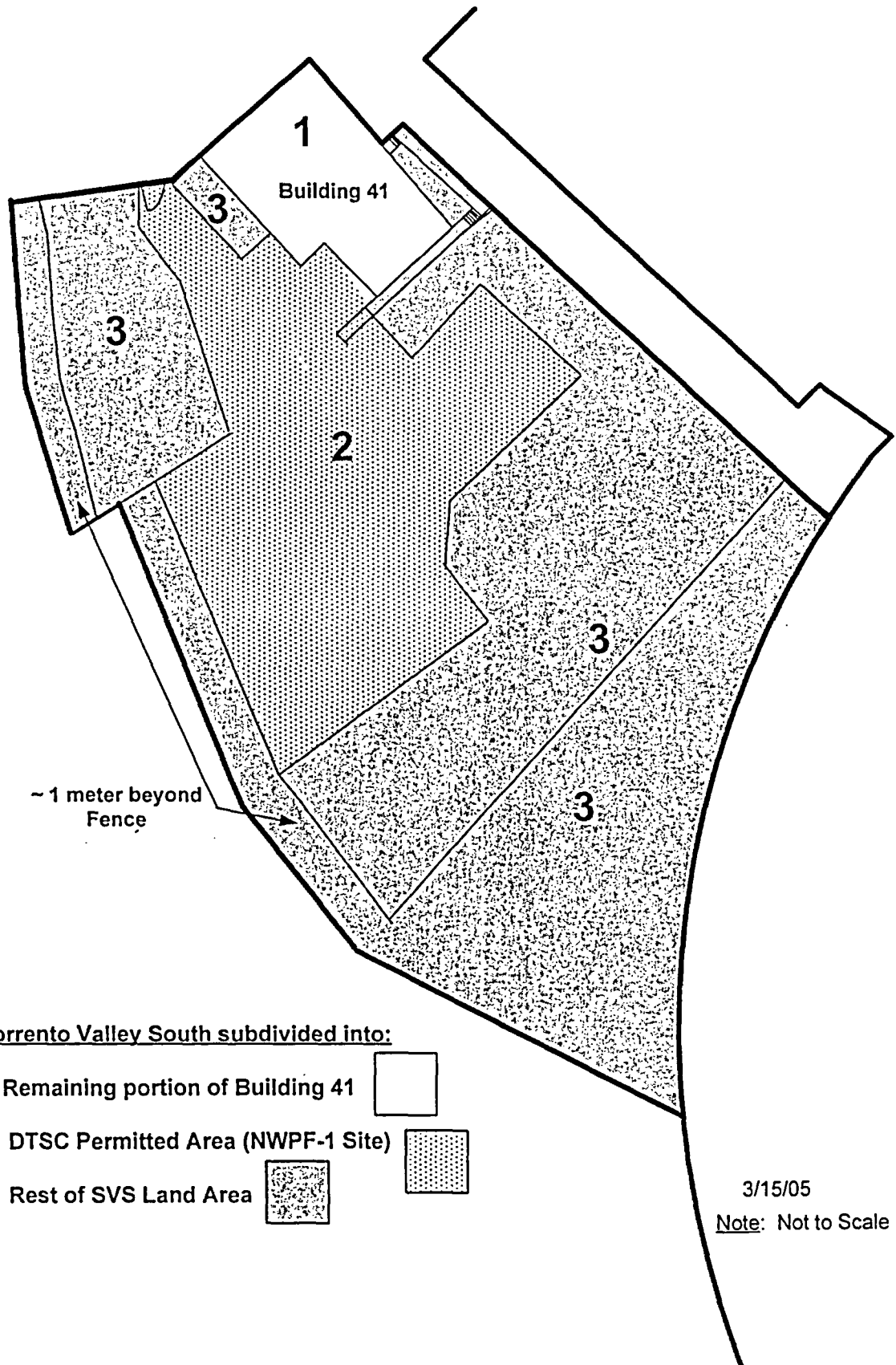


Figure 5: Sorrento Valley Site Land Areas Within NWPF-2 Boundary

